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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/851,445	05/08/2001	Mi-Suen Lee	US 010176	4882

24737 7590 03/24/2004

PHILIPS INTELLECTUAL PROPERTY & STANDARDS  
P.O. BOX 3001  
BRIARCLIFF MANOR, NY 10510

EXAMINER

MCCARTNEY, LINZY T

ART UNIT	PAPER NUMBER
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2671

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/851,445

Applicant(s)

LEE ET AL.

Examiner

Linzy McCartney

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2002.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-30 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 08 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 2.5.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,714,997 to Anderson in view of U.S. Patent No. 6,157,733 to Swain.

- a. Referring to claim 11, Anderson discloses an input for receiving at least one monocular video input image (column 9, lines 56-63; column 37, lines 32-39; Figs 4 and 5); at least one processor adapted to perform applying at least one respective transform to each foreground object and to the background, for each of a plurality of images; deriving the plurality of output images from the results of the respective transformations (column 39, lines 15-21 and lines 44-61). Anderson does not explicitly disclose at least one processor for segmenting at least one foreground object from the input image. Swain discloses at least one processor for segmenting at least one foreground object from the input image (column 3, lines 19-48; Fig. 6). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify the device of Anderson by including at least one processor for segmenting at least one foreground object as taught by Swain. The suggestion/motivation for doing so would have been because Anderson suggests separating foreground and background objects (Anderson, column 20, lines 61-

63) and because it would allow objects of interest to the user to be identified (Swain, column 3, line s46-49).

b. Referring to claim 12, Anderson discloses applying a respective transformation to each background object for each of the plurality of output images (column 39, lines 15-21 and lines 44-60). Anderson does not explicitly disclose segmenting at least one background object. Swain discloses segmenting at least one background object (column 3, lines 19-48; Fig. 6).

c. Referring to claim 13, Anderson discloses there are two output images and applying two respective transformations to each object and further applying two transformations are applied to the background (column 39, lines 15-20 and lines 44-60). Anderson does not explicitly disclose segmenting the objects. Swain discloses segmenting the objects (column 3, lines 19-48; Fig. 6).

d. Referring to claim 14, Anderson discloses combining display unit adapted to receive the display the plurality of output images, so that the plurality of output images are perceivable by a user as a single image having enhanced three dimensional appearance (column 39, lines 32-43).

e. Referring to claim 15, Anderson does not explicitly disclose wherein the respective transformations applied to the foreground object make the foreground object stand out from the background. Swain discloses wherein the respective transformations applied to the foreground object make the foreground object stand out from the background (Fig. 4E; column 3, line 50 – column 4, line 31).

f. Referring to claim 16, Anderson discloses receiving comprises receiving a multiplicity of monocular input images (column 9, lines 56-63; column 37, lines 32-39; Figs 4 and 5); deriving comprises deriving a plurality of output images for each of the monocular images (column 39, lines 15-21 and lines 44-61); a combining display unit for receiving and displaying the respective pluralities of output images, so that the respective pluralities of output images are perceivable by a user sequence of single images giving an illusion of motion and having an enhanced three dimensional appearance in which the at least one foreground object moves separately from the at least one background object (column 39, lines 32-43; column 40, lines 2-13).

g. Referring to claim 17, Anderson discloses wherein at least one foreground object appears to move in the output images, while at least a portion of the rest of the image appears not to move (column 40, lines 2-13).

h. Referring to claim 18, Anderson does not explicitly discloses wherein the segmenting and applying operations involves using domain knowledge to recognize positions of expected objects in the monocular input image and derive position of objects in the output images. Swain discloses wherein the segmenting and operating involves using domain knowledge to recognize positions of expected objects in the monocular input image and derive position of objects in the output images (column 3, lines 19-25 and lines 50-57).

i. Referring to claim 19, Anderson does not explicitly disclose wherein respective transformations for background pixels are derived by comparing at least two monocular input images of a single scene. Swain discloses wherein respective transformations for

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background pixels are derived by comparing at least two monocular input images of a single scene (column 3, lines 29-36 and line 50- column 4, line 11).

j. Referring to claim 20, Anderson does not explicitly disclose prior to applying the transformation approximating a position of each segmented objects as appearing on a fronto-parallel plane. Swain discloses prior to applying the transformation approximating a position of each segmented objects as appearing on a fronto-parallel plane. (column 3, lines 19-49).

k. Method claims 1-10 recite steps performed by apparatus of claims 11-20; therefore they are similar in scope and rejected under the same rationale.

l. Code on a readable medium claims 21-30 recites steps performed by apparatus of claims 11-20; therefore they are similar in scope and rejected under the same rationale.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Linzy McCartney** whose telephone number is **(703) 605-0745**. The examiner can normally be reached on Mon-Friday (8:00AM-5: 30PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Mark Zimmerman**, can be reached at **(703) 305-9798**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

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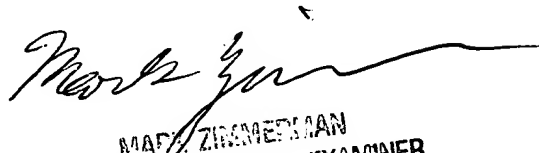
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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

ltm

February 25, 2004

  
MARK ZIMMERMAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600